

the improvement wherein

the two tube plates are anchored in an essentially known manner at their edges to the reactor jacket in a sealed manner, and wherein the heat insulation zone [includes] comprises a chamber containing a solid, liquid or gaseous heat insulation material or includes built-in components that are stream-calming with respect to the heat carrier.

5. (Twice Amended) Tubular reactor as set forth in claim 1, having a heat insulation zone in the form of a chamber (64), [and] the improvement wherein a liquid or gaseous heat insulation material in [the] said chamber is prevented from circulating by structures [that are] installed in [the] said chamber.

6. (Twice Amended) Tubular reactor as set forth in claim 1, having a heat insulation zone in the form of a chamber, the improvement wherein a liquid or gaseous heat insulation material is circulated [throughout] through [the] said chamber as cooling medium.

7. (Twice Amended) Tubular reactor as set forth in claim 6, wherein a partial stream of the heat carrier circulating around the contact tube bundle is used as [a] said liquid or gaseous heat insulation material.

8. (Twice Amended) Tubular reactor as set forth in claim 1, having a heat insulation zone formed by built-in components, the improvement wherein [the] said components exhibit a honeycomb or concentric ring [structures] structure.

9. (Twice Amended) Tubular reactor as set forth in claim 8, wherein [the] said components are covered, at least on the side opposite the tube plate on the gas inlet side.

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10. (Once Amended) Tubular reactor as set forth in claim 9, wherein [the] said components are sealed on the side opposite the tube plate on the gas inlet side.